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## NOTICE OF ALLOWANCE AND FEE(S) DUE

7590 04/17/2008

COOK, ALEX, McFARRON, MANZO,  
CUMMINGS & MEHLER, LTD.  
SUITE 2850  
200 WEST ADAMS STREET  
CHICAGO, IL 60606

EXAMINER

DHARIA, PRABODH M

ART UNIT

PAPER NUMBER

2629

DATE MAILED: 04/17/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/633,964

08/04/2003

Kazutaka Inukai

0553-0376

5167

TITLE OF INVENTION: DEVICE AND DRIVING METHOD THEREOF

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$0	\$1440	\$1440	07/17/2008

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.**

**THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.**

### HOW TO REPLY TO THIS NOTICE:

#### I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

# **PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
or Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

7590 04/17/2008

COOK, ALEX, McFARRON, MANZO,  
CUMMINGS & MEHLER, LTD.  
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200 WEST ADAMS STREET  
CHICAGO, IL 60606

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

## **Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,964	08/04/2003	Kazutaka Inukai	0553-0376	5167

TITLE OF INVENTION: DEVICE AND DRIVING METHOD THEREOF

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$0	\$1440	\$1440	07/17/2008

EXAMINER	ART UNIT	CLASS-SUBCLASS
DHARIA, PRABODH M	2629	345-076000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 \_\_\_\_\_
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 \_\_\_\_\_
- 3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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10/633,964	08/04/2003	Kazutaka Inukai	0553-0376	5167

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EXAMINER

DHARIA, PRABODH M

ART UNIT

PAPER NUMBER

2629

DATE MAILED: 04/17/2008

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 10 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 10 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

# Notice of Allowability

Application No.

10/633,964

Examiner

PRABODH M. DHARIA

Applicant(s)

INUKAI, KAZUTAKA

Art Unit

2629

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 02-19-2008.
2. ☒ The allowed claim(s) is/are 2-40.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 02-14-2008
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

/Prabodh M Dharia/  
Primary Examiner, Art Unit 2629

Art Unit: 2629

1. **Status:** Please all the replies and correspondence should be addressed to Examiner's new art unit 2629. Receipt is acknowledged of papers submitted on 02-14-2008 under IDS with RCE after the notice of allowance mailed on 09-21-2007 which, have been placed of record in the file. Claims 2-40, are pending in this office action. Claims 1 is cancelled.

2. Applicant's petition to withdraw from issue to consider newly filed IDS with RCE has been reviewed by USPTO legal petition department and petition has been approved and granted on 02-19-2008. The prosecution of the application number 10633964 has been reopened. Claims 2-40 are pending in this action. Claim 1 is cancelled.

***Information Disclosure Statement***

3. The information disclosure statement (IDS) submitted with RCE on 02-14-2008 was filed after the mailing date of the notice of allowance on 09-21-2007. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

4. Applicant has filed the information disclosure statement (IDS) on 02-14-2008 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner. However, after further search and consideration the prior arts cited on the PTO 1449 fails to recite or disclose allowable limitations recited below; which puts application number 10633964 in condition for allowance.

*Allowable Subject Matter*

5. Claims 2-40 are allowed.

6. The following is an examiner's statement of reasons for allowance:

Applicant has filed the information disclosure statement (IDS) on 02-14-2008 in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner. However, after further search and consideration the prior arts cited on the PTO 1449 fails to recite or disclose the uniquely distinct features represented by underlined bold claim below;

Independent claim 2 identifies a uniquely distinct feature "wherein at least four data lines extend in each one of the pixel columns, and wherein the at least four data lines are connected to different data drivers". Independent claim 3 identifies a uniquely distinct feature "a first pixel and a second pixel arranged in the same column direction in the pixel portion, wherein each of the first pixel and the second pixel comprises a switching transistor and a light emitting element; a first data line electrically connected to the switching transistor of the first pixel; and a second data line electrically connected to the switching transistor of the second pixel".

Independent claim 4 identifies a uniquely distinct feature "wherein at least one scanning driver is provided to select at least two scanning lines out of the plurality of scanning lines simultaneously, and wherein at least two data drivers are provided to simultaneously supply signals to at least two pixels selected out of the plurality of pixels through the at least two data lines extending in each one of the pixel columns".

Independent claim 5 identifies a uniquely distinct feature "wherein at least one scanning driver is provided to select at least two scanning lines out of the plurality of scanning lines simultaneously, and wherein at least two data drivers are provided to simultaneously supply signals to at least two pixels selected out of the plurality of pixels through the at least two data lines extending in each one pixel column".

Independent claim 19 identifies a uniquely distinct feature "in the writing period, selecting two scanning lines simultaneously by at least one scanning driver, and simultaneously supplying signals by the at least two data drivers to at least two pixels selected out of the plurality of pixels through the at least two data lines extending in each one of the pixel columns".

Independent claim 20 identifies a uniquely distinct feature "in the writing period, selecting two scanning lines simultaneously by at least one scanning driver, and simultaneously supplying signals by the at least two data drivers to at least two pixels selected out of the plurality of pixels through the at least two data lines extending in each one of the pixel columns".

Independent claim 21 identifies a uniquely distinct feature "wherein a first data line of the plurality of data lines is electrically connected to the first switching transistor; wherein a second data line of the plurality of data lines is electrically connected to the second switching transistor; wherein a first scanning line of the plurality of scanning lines is electrically connected to the first switching transistor; wherein a second scanning line of the plurality of scanning lines is electrically connected to the second switching transistor; and wherein each of the plurality of pixels, the first pixel and the second pixel comprises the a tight-emitting element".

Independent claim 23 identifies a uniquely distinct feature "a first data driver for supplying a video signal to the pixels which are arranged in first to  $m/2$ -th rows and in odd-

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numbered rows; a second data driver for supplying a video signal to the pixels which are arranged in first to  $m/2$ -th rows and in even-numbered rows; a third data driver for supplying a video signal to the pixels which are arranged in  $(m/2+1)$ -th to  $m$ -th rows and in odd-numbered rows; a fourth data driver for supplying a video signal to the pixels which are arranged in  $(m/2+1)$ -th to  $m$ -th rows and in even-numbered rows; a first scanning driver for controlling the scanning lines extending in the first to  $m/2$ -th rows; a second scanning driver for controlling the scanning lines extending in the  $(m/2+1)$ -th to  $m$ -th rows; and at least two data lines of the plurality of data lines extending in each one pixel column".

Independent claim 24 identifies a uniquely distinct feature "a first data driver for supplying a video signal to the pixels arranged in a  $m$ -th row; a second driver for supplying a video signal to the pixels arranged in a  $(m+1)$ -th row; a third data driver for supplying a video signal to the pixels arranged in a  $(m+2)$ -th row; a fourth data driver for supplying a video signal to the pixels arranged in a  $(m+3)$ -th row; a first scanning driver for controlling the scanning line extending in the  $m$ -th row; a second scanning driver for controlling the scanning line extending in the  $(m+1)$ -th row; a third scanning driver for controlling the scanning line. extending in the  $(m+2)$ -th row; and a fourth scanning driver for controlling the scanning line extending in the  $(m+3)$ -th row".

Independent claim 25 identifies a uniquely distinct feature "a first data driver for supplying a video signal to the pixels which are arranged in first to  $1/4$ -th rows through the data lines; a second data driver for supplying a video signal to the pixels which are arranged in  $(m/4+t)$ -th rows to  $m/2$ -th row through the data lines; a third data driver for supplying a video signal to the pixels which are arranged in  $(m/2+1)$ -th row to  $3/4$ -th rows through the data lines;



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a fourth data driver for supplying a video signal to the pixels which are arranged in  $(3 \times m/4 + 1)$ -th row to  $m$ -th rows through the data lines; a first scanning driver for controlling the scanning lines extending in the first to  $m/4$ -th rows; a second scanning driver for controlling the scanning lines extending in the  $(m/4 + 1)$ -th row to  $m/2$ -th rows; a third scanning driver for controlling the scanning lines extending in the  $(m/2 + 1)$ -th row to  $3m/4$ -th row; a fourth scanning driver for controlling the scanning lines extending in the  $(3 \times m/4 + 1)$ -th row to  $m$ -th row; and at least two data lines of the plurality of data lines extending in each column pixel'.

Independent claim 36 identifies a uniquely distinct feature "wherein at least two data lines of the plurality of data lines are arranged in a first pixel column, and the at least two data lines electrically connected to different pixels which are arranged in the first pixel column and wherein at least two data lines of the plurality of data lines are arranged in a second pixel column, and the at least two data lines electrically connected to different pixels which are arranged in the second pixel column".

Independent claim 37 identifies a uniquely distinct feature "wherein at least four data lines of the plurality of data lines are arranged in a first pixel column, and the at least four data lines electrically connected to different pixels which are arranged in the first pixel column and wherein at least four data lines of the plurality of data lines are arranged in a second pixel column, and the at least four data lines electrically connected to different pixels which are arranged in the second pixel column".

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prabodh M Dharia whose telephone number is 571-272-7668. The examiner can normally be reached on M-F 8AM to 5PM.

8. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Application/Control Number: 10/633,964  
Art Unit: 2629

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/Prabodh M Dharia/

Prabodh Dharia

Primary Examiner

Art Unit 2629

04-05-2008